

Working with RUNS databases at D0

1) Online RUNS database

- Purpose: hold data about runs taken together with all detector related information.
- Receives data from COOR through the RunGrabber application
- Sends data to offline RUNS database using RunPusher application via database link
- Contains at the moment more than 130K runs

2) Offline RUND database

- Extended copy of online database
- In addition contains tables with Run Quality information

We don't see any problems with those databases and applications ...

Except:

From time to time (4 times this year so far) information written to the databases has to be manually corrected (missing inputs to COOR, operator mistakes and so on). Most of the time one has to update content of the RUNS table: magnet polarity, trigger version, prescales, end run date/time.

I do it now as owner of the RUNS schema using sql scripts. Since I expect to have reduced availability in the near future, it's probably a good idea to create special role which will allow Geoff and Bill to make such minor changes to the RUNS table. They can use such a tool as Aqua Data Studio 6.5 (installed on online cluster) to do that.

Of course, if more complex updates of RUNS database are required, which involve other tables, then we can rely on DBA's help

Usage of Data Studio to update table

The screenshot displays the Aqua Data Studio interface. The main window shows a SQL query in the editor:

```
1  
2 SELECT RUN_NUMBER, START_TIME, END_TIME, TRIG_CONFIG_NAME, TRIG_CONFIG_VERS, TRIG_CONFIG_TYPE, CALIB_TYPE, L3_TYPE, PRESCNAME, SDAQ_TYPE, EXP_STATUS  
3 FROM RUNS.RUNS WHERE RUN_NUMBER > 261141 and RUN_NUMBER < 261145  
4 GO  
5
```

The query is executed, and the results are displayed in a table view window titled "D0 Online Production Database : Editing: d0onlprd.RUNS.RUNS". The table view shows the following data:

| | RUN_NUMBER | START_TIME | END_TIME | TRIG_CONFIG_NAME | TRIG_CONFIG_VERS | TRIG_CONFIG_TYPE | CALIB_TYPE | L3_TYPE | PRESCNAME |
|---|------------|----------------------|----------------------|------------------------------|------------------|------------------|------------|----------|-----------|
| 1 | 261142 | 5/11/2010 1:33:43 PM | 5/11/2010 2:08:30 PM | official/zero_bias_4L1L2L3MP | 1.01 | test | (null) | regular | (null) |
| 2 | 261143 | 5/11/2010 1:34:54 PM | 5/11/2010 1:39:09 PM | calibration/cal/calib_x8 | 2.8 | test | PEDS | calcalib | (null) |
| 3 | 261144 | 5/11/2010 1:40:02 PM | 5/11/2010 1:44:17 PM | calibration/cal/calib_x1 | 2.8 | test | PEDS | calcalib | (null) |

The interface also shows a server tree on the left with the "RUNS" table selected. The status bar at the bottom indicates the current location: "Local Database Servers / D0 Online Production Database / Schema / RUNS / Tables / RUNS".

Conclusion

- ❖ D0 RUNS databases and their applications are running well and smoothly
- ❖ No new developments in this area are foreseen in the near future
- ❖ We propose to create special role which will allow update content of the RUNS table in both online and offline instances of the RUNS database. And use that role to make minor updates of that table if necessary.